

DISSON, P.S., inzhener.

Reinforced concrete poles for electric transmission and communication
lines. Transp.stroi.6 no.7:25-27 J1 '56. (MLRA 9:10)
(China--Electric lines--Poles)

BOGIN, Naum Markovich, :kand. tekhn. nauk., DISSON, P.S., inzh.: dots. RUDENKO-MORGUN, I.Ya., kand. tekhn. nauk, nauchnyy red.; GUROV, Yu. S., red. izd-va.; EL'KINA, E.M., tekhn. red.

[Reinforced concrete supports for overhead lines] . Zhelezobetonnye opory vozdukhnykh lini. Moskva, Gos. izd-vo lit-ry po stroit., arkhitekt. i stroit. materialam, 1958. 193 p. (MIRA 11:10)
(Electric lines--Poles)

ALEKSEYEV, Aleksey Pavlovich, kand. tekhn. nauk; DISSON, Pavel--
Solomonovich, inzh.; SESSAREVSKIY, Aleksandr Nikolayevich,
inzh.; SMOL'YANINOV, Aleksandr Andreyevich, kand. tekhn.
nauk; SHURYGIN, Vladimir Pavlovich, kand. tekhn. nauk;
SHADRIN, N.A., prof., retsenzent; GOL'SHUKH, V.V., inzh.;
ABRAGAM, S.R., inzh., red.; BOBROVA, Ye.N., tekhn. red.

[Construction operations in railroad electrification] Stroitel'-
nye raboty pri elektrifikatsii zheleznykh dorog. [Э] А.П.
Alekseev i dr. Moskva, Transzheldorizdat, 1962. 287 p.
(MIRA 15:12)

(Railroads--Electrification)
(Railroads--Buildings and structures)

ALEKSEYEV, Aloksey Pavlovich, kand. tekhn. nauk; DISSON, Pavel
Solomonovich, inzh.; SESSAREVSKIY, Aleksandr Nikolayevich,
inzh.; SMOL'YANINOV, Aleksandr Andreyevich, kand. tekhn.
nauk; SHURYGIN, Vladimir Pavlovich, kand. tekhn. nauk;
SHADRIN, N.A., prof., retsenzent; GOL'SHUKH, V.V., inzh.,
retsenzent; ABRAGAM, S., inzh., red.; BOBROVA, B.N., tekhn.
red.

[Construction work in railroad electrification] Stroitel'nye ra-
boty pri elektrifikatsii zheleznykh dorog. Utverzhdeno
Glavnym upravleniem uchebnymi zavedeniyami MPS v kachestve
uchebnogo posobiya dlia vysshikh uchebnykh zavedenii zhelezno-
dorozhnogo transporta. [By] A.P. Alekseev i dr. Moskva, Trans-
zheldcrizdat, 1962. 287 p. (MIRA 16:2)
(Railroads--Electrification)

DISTANOV, B. G.

DISTANOV, B. G.: "Investigation of 1,3-diacetyl benzene 1-hydroxy-2,4-diacetyl benzene, its methyl ether, 1,3-dihydroxy-4,6- diacetyl benzene, and its mono- and dimethyl ethers, using spectrographic and other physicochemical methods". Khar'kov, 1955. Min Higher Education Ukrainian SSR. Khar'kov Polytechnic Inst imeni V. I. Lenin. (Dissertations for the degree of Candidate of Chemical Sciences.)

SO: Knizhnaya Letopis' No. 50 10 December 1955. Moscow

DISTANOV, B.G.

CHESHKO, P.F.; DISTANOV, B.G.

Spectrographic and other physicochemical methods in the study of
the carbonyl derivatives of benzene. Zhur. ob. khim. 27 no.8:2183-
2193 Ag '57. (MLBA 10:9)

1. Khar'kovskiy politekhnicheskii institut.
(Benzene)

DISTANOV, B.G.
CHESHKO, F.F.; DISTANOV, B.G.

Spectrographic and other physicochemical methods in the study of
the carbonyl derivatives of benzene. Part 2: Analysis of l-oxy-
2,4-diacetylbenzene. Zhur. ob. khim. 27 no.8:2193-2205 Ag '57.

(MLRA 10:9)

1. Enar'kovskiy politekhnicheskiy institut.
(Benzene)

DISTANOV, B.G.

~~CHESHKO, F.F.; DISTANOV, B.G.~~

Investigation of benzene carbonyl derivatives by spectrographic and other physico-chemical methods. Part 3: 1,3-dioxy-4,6-diacetyl benzene and its mono- and diethyl ethers. Zhur.ob.khim. 27 no.10: 2851-2861 0 '57. (MIRA 11:4)

1.Khar'kovskiy politekhnicheskii institut.
(Benzene) (Ethers)

STARTSEV, V.I., *otv. red.*; ALEKSANDROV, B.S., *red.*; BELYAYEV, L.M.,
red.; BRUDZ', V.G., *red.*; VOYTOVETSKIY, V.K., *red.*;
GALANIN, M.D., *red.*; DISTANOV, B.G., *red.*; KLIMOV, A.P.,
red.; SENENENKO, M.G., *red.*; SHAMOVSKIY, L.M., *red.*

[Scintillators and scintillation materials] Stsintilliatory i
stsintilliatsionnye materialy. Moskva, Gos. komitet Soveta
Ministrov SSSR po khimii, 1960. 319 p. (MIRA 15:4)

1. Koordinatsionnoye soveshchaniye po stsintilliatoram. 2nd, 1957.
(Scintillation counters)

DISTANOV, B.G.

24.6810

82881

S/120/60/000/02/012/052

EO32/E314

AUTHORS: Nagornaya, L.L., Kilimov, A.P., Distanov, B.G. and Podgornaya, L.M.

TITLE: Plastic Scintillators with Additions of Aryl-substituted Pyrazolines

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No. 2, pp 48 - 50 (USSR)

ABSTRACT: The scintillation efficiency and the luminescence spectrum of polystyrene solutions of the following substances have been investigated: 1.3-diphenyl-5-(2-chlorophenyl)-pyrazoline; 1.5-diphenyl-3-(4-biphenyl)-pyrazoline; 1.5-diphenyl-3-(1-naphthyl)-pyrazoline; 1.5-diphenyl-3-(2-naphthyl)-pyrazoline. It was found that polystyrene solutions with the addition of 2% n-terphenyl and 0.2% 1.3-diphenyl-5-(2-chlorophenyl)-pyrazoline have a scintillation efficiency of 155%. Triaryl pyrazolines can be used as additives to plastic scintillators. They are most usefully employed as spectrum shifters. Figures 1 and 2 show the photoluminescence spectra of the plastic scintillators and Figures 3 and 4 the concentration

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S/120/60/000/02/012/052

Plastic Scintillators with Additions of Aryl-substituted Pyrazolines

dependence of the scintillation efficiency.

There are 4 figures, 1 table and 3 Soviet references.

ASSOCIATION: Khar'kovskiy filial Vsesoyuznogo nauchno-
issledovatel'skogo instituta khimicheskikh reaktivov
(Khar'kov Branch of the All-Union Scientific Research
Institute for Chemical Reagents)

SUBMITTED: January 17, 1959

Card 2/2

DISTANOV, B.G.; KRESAL'NAYA, L.Z.; STEPANOVA, N.S.; KIPRIYANOVA, S.S.

Preparation of alkali halides of high degree of purity. Zhur.-
neorg.khim. 7 no.6:1464-1465 Je '62. (MIRA 15:6)
(Alkali metal halides)

L 49005-65 EWT(m)/EPF(c) /EWP(j) Po-L/Pr-L RM

ACCESSION NR: AR5007237

S/C001/65/000/002/N016/N016

SOURCE: Ref. zh. Khimiya, Sv. t., Abs. 2NB4

AUTHOR: Distanov, B. G.; Moisyayev, V. N.

TITLE: Single scintillation crystals based on ethylene derivatives

CITED SOURCE: Sb. Stsintillyatory i stsintillyats. Vyps. 3, materialy. Khar'kov, Khar'kovsk. un-t, 1963, 36-39

TOPIC TAGS: crystal growth, single crystal, scintillation crystal, ethylene derivative, naphthalene crystal, diarylethylene synthesis, diarylethanol dehydration

TRANSLATION: The results of measurements of the relative scintillation effectiveness of single crystals of naphthalene with admixtures of synthetic ethylene derivatives are presented. Single crystals of naphthalene were grown by the Steber method from inocula of pure naphthalene. The scintillation effectiveness of a single crystal of naphthalene with an admixture of 1-phenyl-2-(γ -antryl)-ethylene was 1.23-1.25 times as great as that of a stilbene crystal. The authors suggest a method, which is suitable for industrial use, for the preparation of 1,2-diarylethylenes by the thermal dehydration of 1,2-diarylethanol.

Card 172

I 49005-65

ACCESSION NR: AR5007237

B. Levin

SUB CODE: 88, 00

ENCL: 00

Card

2/2

L 16710-65 EWI(m)/EPE(e)/EWP(j) Pc-4/Pr-4 RPL/ESD(gs)/BSD/AFWL/ASD(a)-/
 AS(mp)-2/APCC(b) RM
 ACCESSION NR: AR5000785 3/0058/64/000/010/D047/D047

SOURCE: Ref. zh. Fizika, Abs. 10D368

AUTHORS: Tishchenko, V. G.; Verkhovtseva, E. T.; Kutsyna, L. M.; Distanov, E. G.

TITLE: Optical properties of some derivatives of 1,3,5-triphenyl- Δ^2 -pyrazoline

CITED SOURCE: Sb. Ssintillyatory i ssintillyats. materialy. Khar'kov, Khar'kovsk. un-t., 1963, 126-129

TOPIC TAGS: absorption spectrum, fluorescence spectrum, luminescence quantum yield, scintillation activity, scintillator

TRANSLATION: The absorption and fluorescence spectra were determined for a series of derivatives of 1,3,5-triphenyl- Δ^2 -pyrazoline (I), the quantum yields of luminescence (η) were measured in heptane, and the scintillation activity was measured in toluol and 1-methyl naphthalene. In the general case, the absorption spectra are represented by three bands. With weakening of the electron-donor properties of the substitute, the

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L 16710-65

ACCESSION NR: AR5000785

intensity of the two long-wave bands decreases, and the central band disappears completely in substances with electron-acceptor substitutes. With intensification of the electron-acceptor character, a shift of the long-wave band towards higher frequencies takes place, and is explained by the change in the energy of the 1, 3 system of conjugation under the influence of the "5" position as a result of the action of the negative induction effect. The fluorescence spectra do not experience in general any noticeable change under the influence of the substitute. The values of η , measured relative to the substance I, fluctuate in the interval value 0.8 -- 1.2. It is established that the derivatives of I can be used as highly effective additives to liquid scintillators based on either toluol or 1-methyl naphthalene. V. Korobkov.

SUB CODE: OC, OP

ENGL: 00

Card 2/2

Card 1/2

L 43589-65

ACCESSION NR: AT5000572

as dithizonates and hydroxyquinolates. Final purification was accomplished with a chromatographic column (alumina and channel black) to remove the remaining impurities and complex forming agents. Orig. art. has: 1 table.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov, Khar'kov
(All-Union Scientific Research Institute of Single Crystals)

SUBMITTED: 00

ENCL: 00

SUB CODE: IC

NO REF SOV: 003

OTHER: 000

DISTANOV, E.

SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: /not given/

Affiliation: Geological Survey National Enterprise (Geologicky pruzkum, narodni podnik), Pribram

Source: Prague, Vestnik Ustredniho Ustavu Geologickeho, Vol XXXVI, No 5, June 1961, pp 335-342.

Data: "Stratigraphic Division of the Metamorphic Complex of the Middle Part of the Krasne hory Mountains (Erzgebirge)."

Authors: DISTANOV, E.
PATKOVA, J.
SUKOVA, V.

GPO 981643

GODOVIKOV, A.A.; DISTANOV, E.G.; KOSYGIN, Yu.A.; KUZNETSOV, V.A.; SAKS, V.N.;
SOBOLEV, V.S.; SOKOLOV, B.S.; TROFIMUK, A.A.; SHAKHOV, F.N.

In memory of Oleg Dmitrievich Levitskii. Geol. i geofiz. no.3:116-
117 '61. (MIRA 14:5)

(Levitskii, Oleg Dmitrievich, 1909-1961)

DISTANOV, E.G.

Role of shift movements in the formation of the northeastern shear zone in the Altai and localization of complex metal mineralization in it. Geol.i geofiz. no.2:52-65 '62. (MIRA 15:4)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

(Leninogorsk region (Altai Mountains)—Geology, Structural)

(Leninogorsk region (Altai Mountains)—Ore deposits)

DISTANOV, E.G.

Age of complex metal deposits in the Salair Ridge. Geol. i geofiz.
no.8:38-54 '63. (MIRA 16:10)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR,
Novosibirsk.

(Salair Ridge—Ore deposits)
(Salair Ridge—Geological time)

DISTANOV, E.G.; KOVALEV, K.R.

Metamorphism of the ores of complex metal deposits in the
northeastern part of the Salair Range. Geol. i geofiz. no.3:
21-36 '64. (MIRA 18:7)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR,
Novosibirsk.

DISTANOV, E.G.; KLYAROVSKIY, V.M.; KOVALEV, K.R.; PERTSEVA, A.P.

Age of complex metal mineralization in the Salair ore field.
Geol. rud. mestorozh. 6 no.5:94-97 S-O '64. (MIRA 17:12)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR.

DISTANOV, E.G.; YAKOVLEV, G.F.

Endogenetic ore formations in Siberia and in the Far East. Izv.
AN SSSR. Ser. geol. 29 no.10:140-142 O '64.

(MIRA 17:11)

KUZNETSOV, V.A.; DISTANOV, E.G.

First Session on the Problem "Endogenetic Ore Formations of
Siberia and the Far East." Geol. i geofiz. no.10:179-181
'64.

(MIRA 18:4)

ca *2*

LIST AND INDEX

PRECISES AND PROPERTIES INDEX

Solubility of anhydrous sodium bromide in water and liquid ammonia. G. K. Dintzov. J. Gen. Chem. (U. S. S. R.) 7, 676-681 (1937). Solubilities of NaBr in H₂O at 107°, 100°, 153°, 177°, 183°, 190°, 194°, 199°, 223°, 225°, 228°, 232°, 242° and 248° are 64.2, 65.8, 66.8, 67.3, 67.6, 67.7, 67.8, 68.1, 68.5, 69.7, 69.8, 69.9, 69.7, and 69.8% by wt., resp. In liquid NH₃, at -22°, -14°, -8°, -2°, 2°, 5.2°, 10°, 10.5°, 10.9°, 11.9°, 13.5°, 12.8°, 13°, 75°, 78°, 107°, 120°, 129°, 134°, 147°, 156° and 160°, solubilities are 25, 31.75, 36, 41.09, 44.5, 46.1, 48.94, 50.1, 50.35, 51.8, 52.8, 53.76, 54, 54, 53.76, 52.8, 51.8, 51.07, 50.1, 48.8, 47.2 and 41.06%, resp. S. L. Madorsky

COMMON ELEMENTS

OPEN

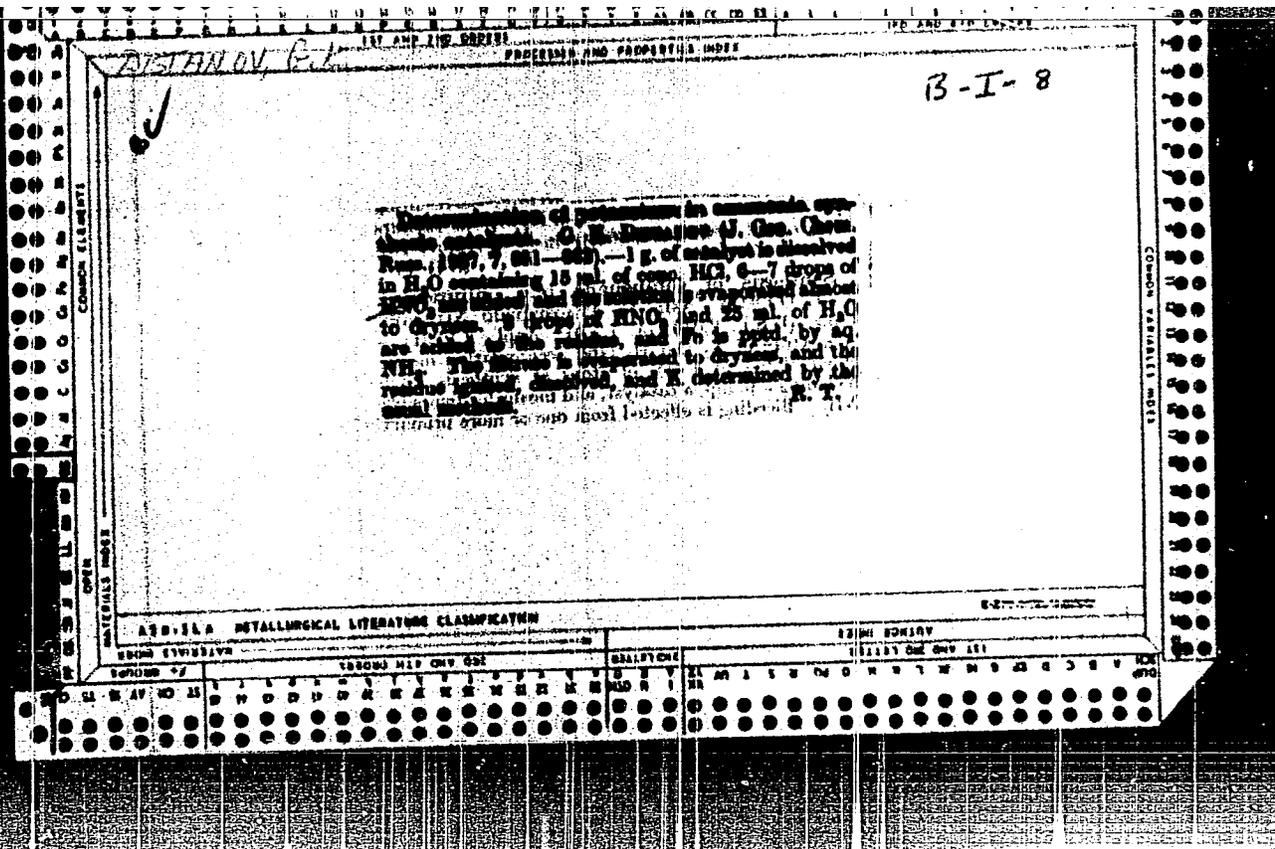
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ALPHABETIC INDEX

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INDEX



1ST AND 2ND ORDERS PROCESSING AND PROPERTIES INDEX 3RD AND 4TH ORDERS

DISTANCE S.K.

2

Properties of aqueous ammonia acting as a mixed solvent. G. K. Distancy, *J. Gen. Chem. (U. S. S. R.)* 8, 783-802 (in English 804) (1938).—The triple systems: salt-NH₃-H₂O, were investigated by the polythermic method described by Alekseyev, Kuribov, Jänecke and others. In the system NaCl-NH₃-H₂O, the -40°, -10°, 0°, 10°, 25° and 40° isotherms were investigated. The solid phases corresponding to these isotherms were: NaCl.5NH₃; NaCl.2H₂O, NaCl, NaCl.5NH₃; NaCl.2aq., NaCl.2H₂O + NaCl, NaCl, NaCl.5NH₃; NaCl; NaCl; NaCl, resp. In the system NaBr-NH₃-H₂O, the -50°, -20°, -10°, 0° and 10° isotherms were investigated. The solid phases corresponding to these isotherms were: NaBr.5NH₃; NaBr.2H₂O, NaBr.5NH₃, NaBr.2H₂O.yNH₃; NaBr.2H₂O, NaBr.5NH₃, NaBr.2H₂O.yNH₃; NaBr.2H₂O, NaBr.2H₂O.yNH₃ + NaBr.5NH₃, NaBr.5NH₃; NaBr.2H₂O, NaBr, resp. In the system NaI-NH₃-H₂O the -50°, -20°, 0°, 20°, 50° and 100° isotherms were investigated. The solid phases corresponding to these isotherms were: NaI.5NH₃; ice, NaI.5H₂O; NaI.2H₂O, NaI.2H₂O.yNH₃, NaI.5NH₃; NaI.2H₂O, NaI; NaI.2H₂O, NaI; NaI, resp. Sp. cond. of satd. solns. of the system NaCl-NH₃-H₂O at 0° and 10° was also studied. Thirty-four references. S. I. Madorsky

ASS. S. I. A. METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS 3RD AND 4TH ORDERS

1	2	3	4	5	6	7	8	9	0	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
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DRUZHININ, Ivan Georgiyevich, professor; SHEPELEV, A.I., dotsent;
DISTANOV, G.K., otvetstvennyy redaktor

[Physical and chemical study of modifications of calcium chloride tetrahydrate] Fiziko-khimicheskoe izuchenie modifikatsii chetyrekhvodnogo khloristogo kul'ts'ia. Frunze, Kirgizskii gos.univ., 1955.
63 p. (MIRA 10:1)

(Calcium chloride)

DISTANOV, G.K.

Solubility of silver halides in liquid ammonia and in ammonia-water solutions. Uch. zap. Biol.-pochv. fak. Kir. un. no.7:163-183 '58. (MIRA 15:10)
(Silver halides) (Ammonia) (Solubility)

DISTANOV, G.K.

Equilibrium in the system $As_2O_3-H_2O-H_2SO_4$. Uch. zap. Biol.-pochv.
fak. Kir. un. no.7:185-188 '58. (MIRA 15:10)
(Arsenic oxides) (Sulfuric acid)
(Phase rule and equilibrium)

DISTANOV, G.K.; KYDYRMYSHEV, E.

Solubility isotherm in the system cobalt chloride - urea - water
at 20°. Zhur.neorg.khim. 7 no.4:885-888 Ap '62. (MIRA 15:4)
(Cobalt chlorides) (Urea) (Solubility)

DISTANOV, U. G.

260T58

USSR/Geology - Clays

11 Jun 53

"The Composition and Characteristics of the Miocene Clays in Bashkir," N. V. Kirsanov and U. G. Distanov, Geol Inst, Kazan' Affiliate, Acad Sci USSR

DAN SSSR, Vol 90, No 5, pp 879-881

Describes the structural scheme of the miocene clays of central and southern Bashkir ASSR. Presented by Acad D. S. Belyankin 1 Apr 53.

260T58

DISTANOV, U. G.

21 Jul 53

USSR/Geology - Coal of Tertiary

"Problem of Selecting the Grading Fractions for Mineralogical Analysis," U.G. Distanov

DAN SSSR, Vol 91, No 3, pp 637-639

Studied mineralogical composition of Tertiary coal-bearing deposits found at a number of points in central Bashkir (Na mkin, Kibyachevo, Maklykul', Sofipol', Sosnovka, Talayevo).

Explains the abrupt change in the contents of certain hard terrigenous

minerals when the general granulometric composition of rocks varies. Presented by Acad

D. S. Belyankin 27 May 53

SO Vecheryaya Moskva
Sum 71

262741

SIMENTOVSKIY, Yu.V.; DISTANOV, U.G.

Characteristics of local building stone. Izv.Kazan.fil.AN SSSR
Sel.geol.nauk no.3:51-61 '55. (MLRA 9:7)
(Building stones)

DISTANOV, U.G.

Some characteristics of Miocene deposits in central Bashkiria
U.G.Distanov. Izv.Kazan.fil.AN SSSR.Ser.geol.nauk no.3:122-126
'55. (Bashkiria--Geology, Stratigraphic) (MIRA 9:7)

DISTANOV, U.G.; KIRSANOV, N.V.; KOCHETOV, V.F.

Drilling fluid materials of the eastern Tatar A.S.S.R. and
results of using water as the circulating agent in oil well drilling.
Trudy Kazan.fil.AN SSSR.Ser.geol.nauk no.5:3-80 '55.

(MIRA 10:1)

(Tatar A.S.S.R.—Oil well drilling fluids)

DISTANOV, U.G., SOLONTSOV, L.F.

Mineralogical and stratigraphical nature of pre-devonian deposits
in the eastern Russian Platform. Dokl. AN SSSR 105 no.1:151-153
N '55. (MLBA 9:3)

1. Geologicheskii institut Kazanskogo filiala Akademii nauk
SSSR. Predstavleno akademikom S.I. Mironovym,
(Russian Platform--Geology, Stratigraphic)

MIROPOL'SKIY, L.M.; DISTANOV, U.G.

[Natural resources of the Tatar Republic] Bogatstva nedr Tatarii.
Kazan', Tatkhniгоizdat, 1956. 74 p. (MLRA 9:7)
(Tatar A.S.S.R.--Natural resources)

Distantov U.G.
RIZUDOROV, A.P.; KIRSANOV, N.V.; DISTANOV, U.G.; TUZOVA, L.S.; ARBUZOV, A.Yu.,
akademik, redaktor; MIROPOL'SKIY, L.M., redaktor; SHAPOVALOVA, G.S.,
redaktor; PAVLOVSKIY, A.A., tekhnicheskiy redaktor.

[Tertiary coal-bearing deposits of the central and southern regions
of Bashkiria] Tretichnye uglennyye otlosheniya tsentral'nykh i iuzhnykh
raionov Bashkirii. Moskva, Izd-vo Akademii nauk SSSR, 1956. 138 p.
(Akademiia nauk SSSR. Kazanskiy filial, Kazan. Geologicheskii institut.
Trudy, no.3)

(Bashkiria--Coal geology)

(MIRA 9:10)

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 1,
pp 129-130 (USSR) 15-57-1-820

AUTHORS: Bludorov, A. P., Kirsanov, N. V., Distanov, U. G.,
Tuzova, L. S.

TITLE: Tertiary Coal Deposits in Central and Southern
Bashkiria (Tretichnyye uglenosnyye otlozheniya
tsentral'nykh i yuzhnykh rayonov Bashkiri)

PERIODICAL: Tr. Geol. in-ta Kazansk. fil. AN SSSR, 1956, Nr 3,
141 pp.

ABSTRACT: The oldest formation, gypsum and dolomite of the
Kungura series, outcrops at the surface in stock-like
forms that break across red beds composed of conglomer-
ates, sandstones, siltstones, and mudstones, with
layers of limestone. These red beds represent deposits
of the Ufa, the Kazan', and the Tataria series, and
part of the Triassic sequence. Layers of coal are
locally present in the Triassic Surakay series. On the
north, Jurassic formations are coal bearing; on the

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15-57-1-820

Tertiary Coal Deposits in Central and Southern Bashkiria (Cont.)

south, they are marine. The Upper Cretaceous contains marine fossils and occurs north of the marine Jurassic. The Paleogene is composed of sandy clay deposits, with layers of coal in the Oligocene rocks in the southern and eastern parts of the region. The Miocene rocks, with the greatest quantity of coal, consist of clays, sands, gravels, and subordinate siltstones and clay breccias; clays predominate in southern Bashkiria and coarse sediments, sands and gravels, are most abundant in central Bashkiria. White kaolinitic clays are characteristic in the floor rocks, locally also in the roof rocks, of the coal beds. Gravels are common both at the base and in the middle of the Miocene coal-bearing sequence. The latter occurrence divides the sequence into two parts. The undisturbed attitude of the Tertiary sediments is destroyed by karst and salt tectonics, which led to the development of faults. The total content of heavy minerals in the Miocene deposits is 0.15 to 0.30 percent of the rock, reaching one percent where there is pyrite in the lower Miocene and in the coals of the middle Miocene. In the sandy gravelly rocks and the clays of the middle Miocene, the increase is due to hydrogoethite. The principal minerals in the heavy fraction
Card 2/4

15-57-1-820

Tertiary Coal Deposits in Central and Southern Bashkiria (Cont.)

(> 10 percent) are iron ores, pyrite, hydrogoethite, locally also zircon, tourmaline, rutile, and picotite. The chief light minerals are quartz, chert; and feldspar. Tourmaline, picotite, rutile, and deucoxene are index minerals for correlation in the Lower Miocene. In the Middle Miocene, in addition to those mentioned, ilmenite, sillimanite, and disthene are also used. The Southern Urals formed the provenance for the Miocene deposits. The coal-bearing sequence is composed of sediments of alternating alluvial, lacustrine, and paludal facies, usually in seven to eight lithic groups, the number of which is almost twice as great in the southeastern part of the area because of the greater mobility of the land. The Miocene dating of the coal deposits is supported by pollen-spore complexes and by woody structures that point to the predominance of conifers on the south and of woody plants on the north, including warm-climate forms. The plants belong to the Turgay flora and were introduced through the Turgay Strait. Both simple and complex coal beds are formed by dense and earthy coals, by small or large fragments of lignite, locally with peat-like varieties. The coal is brown, dull, with clotted matrix and indistinct segregated
Card 3/4

15-57-1-820

Tertiary Coal Deposits in Central and Southern Bashkiria (Cont.)

inclusions of xylain, fusain, vitrain, cuticle, spore husks, tar bodies, and minerals. The coal in the surrounding parts of the deposit has more ash than the finely crushed coal in the central parts. The coal accumulated in Tertiary time in a succession moving in general from south to north, forming in the southern region in the Oligocene (weakly) and in the lower Miocene. The entire region was the site of coal accumulation in the middle Miocene. Uplift of the southern part of the region led to erosion of the middle Miocene coal deposits. Rare accumulations of Pliocene coal have no industrial value.

Card 4/4

A. K. M.

DISTANOV, U.G.; SOLONTSOV, L.F.

Data on mineralogical and petrological characteristics of Devonian deposits in the Volga-Ural region. Izv. Kazan. fil. AN SSSR. Ser. geol. nauk no.5:23-39 '56. (MLRA 10:4)

(Volga Valley--Geology, Stratigraphic)

(Ural Mountain region--Geology, Stratigraphic)

DISTANOV, U.G.

~~Regularity~~ of the occurrence of mineralogical associations in
upper Permian variegated deposits of the central sector of the
Ural-Volga region. Izv.AN SSSR. Ser.geol. 21 no.9:98-101 S '56.
(MLRA 9:11)

(Ural Mountains--Geology, Stratigraphic)

(Ural Mountains--Mines and mineral resources)

DISTANOV, U.G.

Some problems of immersion methods of studying terrigenous
sedimentary rock. Zap.Vses.min.ob-va 85 no.2:235-241 '56.
(MLRA 9:9)

1. Geologicheskii institut Kazanskogo filiala Akademii nauk
SSSR.

(Rocks, Sedimentary)

DISTANOV, U.G.; KIRSANOV, N.V.

Character and mineralogical composition of terrigenous lower
Akchagylan sediments in the Vyatka-Kama area. Izv.Kazan.fil.
AN SSSR. Ser.geol.nauk no.6:141-149 ' 57. (MIRA 12:1)
(Vyatka Valley--Clay)
(Kama Valley--Clay)

DISTANOV, U.G.

Composition of clayey materials in Paleogene siliceous rocks of
the middle Volga Valley. Dokl.AN SSSR 137 no.5:1198-1201 Ap '61.
(MIRA 14:4)

1. Geologicheskiy institut Kazanskogo filiala AN SSSR. Predstavleno
akademikom N.M.Strakhovym.
(Volga Valley--Rocks, Siliceous) (Clay)

DISTANOV, U. G.

Lithologic and facies characteristics of the Lower and Upper
Syranian Paleocene deposits in the Ul'yanovsk region of the
Volga Valley. Dokl. AN SSSR 147 no.4:896-899 D '62.
(MIRA 16:1)

1. Geologicheskly institut Kazanskogo filiala AN SSSR. Pred-
stavleno akademikom N. M. Strakhovym.

(Ul'yanovsk Province--Geology, Stratigraphic)

DISTANOV, U.G.; NEZIMOV, V.N.

Utilization of opoka of the Ul'yanovsk Province as hydraulic
additives for the Shmgurovo Cement Factory. Izv.Kazan.fil.
AN SSSR. Ser.geol.nauk no.9:153-170 '60. (MIRA 15:12)
(Tatar A.S.S.R.—Cement industries)

DISTANOV, H.G.

Clastic dikes of the Volga Valley. Dokl. AN SSSR 160 no.5:1159-
1161 F '65. (MIPA 18:2)

1. Geologicheskiy institut, Kazan'. Submitted November 12, 1964.

DISTANOVA, A.N.

Contact phenomena in certain granite intrusions in the south-western part of central Kazakhstan. *Izv.vys.ucheb.zav.; geol. i razv. 2 no.4:94-109* Ap '59. (MIRA 12:12)

i. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova. (Kazakhstan--Rocks, Crystalline and metamorphic)

DISTANOVA, A.N.

Contact phenomena as illustrated by some granite intrusions in
central Kazakhstan. *Bul.MOIP.Otd.geol.* 34 no.4:157-158 Sl-Ag
'59. (MIRA 13:8)

(Kazakhstan--Metamorphism (Geology))

DISTANOVA, A. N., Cand Geolog-Mineralog Sci (diss) -- "Contact phenomena of some granitic intrusions of the southwestern portion of central Kazakhstan". Moscow, 1960. 22 pp (Moscow Order of Lenin and Order of Labor Red Banner State U im M. V. Lomonosov, Geol Faculty, Chair of Petrography), 110 copies (KL, No 10, 1960, 127)

AFANAS'YEV, G.D.; AFANAS'YEV, L.M.; BELIKOV, B.P.; KOPTIV-
DVORNIKOV, V.S.; MIKHAYLOV, N.A.; MONICH, V.K.; PAVORSKAYA,
M.A.; prinimali uchastiye: DISTANOVA, A.N.; YELISEYEVA, O.P.;
MARFUMIN, A.S.; YUNAKOVSKAYA, Yu.V.; USTIYEV, Ye.K., doktor
geol.-min. nauk, otv. red.; NEMANOVA, G.F., red. izd-va; BYKO-
VA, V.V., tekhn. red.

[Principles of the geological mapping of intrusive and extrusive
formations as exemplified by petrographic studies in Kazakhstan,
Transbaikalia, the Northern Caucasus, and Maritime Province]
Printsipy geologicheskogo kartirovaniya intruzivnykh i effusiv-
nykh formatsii na primere petrograficheskikh issledovaniy Se-
vernogo Kavkaza, Kazakhstana, Zabaikal'ia i Primor'ia. Moskva,
Gos.nauchno-tekhn. izd-vo lit-ry po geol.i okhrane nedr, 1960.
341 p. (MIRA 14:5)

1. Akademiya nauk SSSR. Institut geologii rudnykh mestorozhdeniy,
petrografii, mineralogii i geokhimi. 2. Sotrudnik Instituta geolo-
gicheskikh nauk AN Kaz. SSR (for Monich). 3. Sotrudnik Vsesoyuzno-
go geologicheskogo inatituta (for Mikhaylov) 4. Sotrudniki
Moskovskogo gosudarstvennogo universiteta (for Yunakovskaya, Distano-
nova)

(Rocks, Igneous)

KOPEV-DVORNIKOV, V.S.; POLKVOY, O.S.; DISTANOVA, A.N.; DMITRIYEV, A.N.;
YEFREMOVA, S.V.; KOZLOV, A.V.; PAVLOV, V.A.; PLAMENEVSKAYA,
N.L.; NEGREY, Ye.V.; SHEYMAN, V.S., red.izd-va; DOROKHINA,
I.N., tekhn.red.

[Paleozoic intrusive complexes of granitoids in Bet-Pak-Dala]
Paleozoiskie intruzivnye kompleksey granitoidov Betpakdala.
Moskva, Izd-vo Akad.nauk SSSR, 1962. 295 p. (Akademiya nauk
SSSR. Institut geologii rudnykh mestorozhdenii, petrografii,
mineralogii i geokhimii. Trudy, no.54). (MIRA 15:5)
(Bet-Pak-Dala--Rocks, Igneous)

DISTANOVA, A.N.

Changes in the optical properties of potassium feldspars in rocks
of contact aureoles of granitic intrusions. Geol.i geofiz.
no.5:130-132 '62. (MIRA 15:8)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR,
Novosibirsk.

(Feldspar--Optical properties)

DISTANOVA, A.N.

Martayga intrusive complex. Trudy Inst. geol. i geofiz. Sib. otd.
AN SSSR no.33:134-144 '63. (MIRA 17:11)

BUKHAHTAB, Z.I.; DISTANOVA, L.Ya., inzh.

Determining the carbonyl numbers of products from paraffin
oxidation. Masl.-zhir. prom. 27 no.11:29-31 N '61. (MIRA 15:1)

1. Khar'kovskiy politekhnicheskiy institut imeni V.I. Lenina.
(Paraffin wax)
(Oxidation) (Carbonyl group)

DISTERLO, B.N.

Akhan-Garan Combine. Stroi.mat. 9 no.11:9-11 N '63.
(MIRA 17:4)

1. Glavnyy inzhener proyekta Gosudarstvennogo instituta
po proyektirovaniyu predpriyatiy stroitel'nykh materialov
Gostroya SSSR.

PROGRAMS AND PROPERTIES INDEX

2

ca

The dichroism of $Pt(NH_3)_2Cl_2 \cdot OH$. O. B. Bokil and G. I. Dinkov. *Doklady Akad. Nauk S.S.S.R.* 56, 923-4 (1947); *Chem. Zvest.* 1947, 1, 204. —Complex Pt compds. of the type $Pt(NH_3)_2Cl_2 \cdot Pt(NH_3)_2Cl_2(OH)$, appear in various modifications. These compounds showed a marked dichroism. In contrast to other polarizing films of dichroic crystals, these compounds contain no l or l; radical and are therefore stable toward the air and org. solvents. These crystals show black-white dichroism in polarized light. They are transparent in thin films; in thicker layers they appear light yellow. The absorption spectra in polarized light, both parallel and perpendicular to the plane of polarization, were photographed. The crystals polarized the light throughout the whole visible spectrum up to at least 6500 Å. and down to 3800 Å. The corresponding values for the American Polaroid specimen used for comparison were 6200 and 4000 Å. Thus the crystals can be used as polarizers in the infrared and near the ultraviolet. The crystals can be obtained in the form of fine needles or thin platelets or as single crystals.
M. G. Moore

ASR-51A METALLURGICAL LITERATURE CLASSIFICATION

FROM SYDNEY

LEADERSHIP GROUP

EXHIBITION

START ONE ONE ALL

EL AV NO M

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

CH

2

Electronegraphic study of polyvinyl alcohol films. I.
G. I. Belov and Z. G. Piskun (Acad. Sci. U.S.S.R., Moscow, U.S.S.R.) *Dokl. Akad. Nauk SSSR*, 1964, 199, 138-140.

C A DISTLER, G. I.

2

Electron diffraction of stretched films of polyvinyl alcohol.
 H. G. I. Distler and Z. G. Pinsker (Inst. Cryst., Acad. Sci. U.S.S.R., Moscow). *Zhur. Fiz. Khim.* 54, 1188-7 (1980).—A few drops of a 0.2% aq. soln. of polyvinyl alc. (I) were laid upon a celluloid film fixed on a suitable frame. The film of I obtained after evapn. of the H₂O was pushed upwards by means of metallic supports and the celluloid film was dissolved in amyl acetate. Before stretching, the film was subjected to the action of H₂O vapor and sometimes heated on an elec. plate. The extension amounted to 100-200% on the av. The photographic plate was at a distance of 68 and 22 cm. from the film. All reflections lay on layer lines. The line passing through the center and \perp to the stress axis is called equatorial and the other lines are given indexes in the order of their distance from the center. The electron wave length was detd. by means of metallic Ag sputtered on the film. The identity periods were calcd. The electron diffraction photographs resemble the corresponding x-ray patterns. Reflections are arc-shaped. Their sharpness is not higher than for unstretched films. The new reflections due to stretching lie all in a direction parallel to the stress axis. The most intense ones correspond to the rings of the pattern obtained with non-stretched films. The pattern does not change when the I film is rotated about the stress axis (the incident beam is \perp

to this axis) or when a plasticizer (glycerol) is added to the film or after long exposure to the beam. A normal I film contains ordered domains of various shapes and sizes (C.A. 64, 3821A). Under stress, the domains are rearranged and orient themselves in the direction of the stress axis. The visually estd. relative intensities are 100 (101), \sim 0 (202), \sim 0 (002), 2 (110), 36 (111), 5 (212), 11 (020), 1-2 (120), 1 (110), 1 (040). They are in complete disagreement with the intensities computed with the aid of two different models of the polymer (Mooney and Bunn); 200 and 002 which ought to be the most intense, are extremely weak. The similarity between the pattern of stretched and normal films suggests that the domains are very similar in both cases. The absence of $h0l$ reflections shows that the domains have a structure departing from ideality, the discrepancy having an anisotropic character: the distances between atoms of neighboring chains are not regular. Indeed, the quantity $\sqrt{d^2}$ computed as the equiv. of the displacement due to heat motion, is 0.89 Å. for 200 and 0.58 Å. for 002, i.e. about 10% of the distances between atoms of neighboring chains in the ideal model. The effect is confirmed by x-ray patterns which show much weaker and more diffuse $h0l$ reflections for films extended to 100-200% than for films extended to 800%. In nonstretched films, the effect is masked by the isotropy of the texture. Only for very large extensions (500-800%) does the dimension of the ordered domains start to grow. The electron-diffraction patterns are characteristically diffuse, which is due to the small size of the domains.

Michel Boudart

CA

Electronographic investigation of unstretched and stretched films of a polyamido ester. G. I. Distler and Z. G. Piusker (Acad. Sci. U.S.S.R., Moscow). *Doklady Akad. Nauk S.S.S.R.* 72, 315-18(1959). The polymer was produced from sebacic acid and monoethanolamine according to $n \text{CO}_2\text{H}(\text{CH}_2)_8\text{CO}_2\text{H} + n \text{OH}(\text{CH}_2)_2\text{NH}_2 \rightarrow [\text{CO}_2(\text{CH}_2)_8\text{NHCO}(\text{CH}_2)_2]_n + 2n \text{H}_2\text{O}$; it is sol. in CH_2Cl_2 and MeOH , insol. in H_2O . Films were produced by depositing a few drops of a 1% soln. in CHCl_3 with some MeOH on H_2O . Unstretched electron-diffraction diagrams show 8 relatively sharp rings, with the 1st 2 most intense. Stretching by 100-200% transforms the rings into diffuse arcs and increases their no. and intensity. Most reflections lie on a line parallel to the axis of stretching. Rotation of the film around that axis perpendicular to the electron beam does not change the diffraction pattern. From the sepn. of the lines disposed perpendicularly to the axis of stretching, the identity period along the mol. axis is $16.90 \pm 0.05 \text{ \AA}$, in approx. agreement with the figure calculated for a plane chain, 17.22 \AA . This detn. proves also that the polymerization does not proceed over an intermediate $\text{HO}(\text{CH}_2)_8\text{NHCO}(\text{CH}_2)_2\text{CONH}(\text{CH}_2)_2\text{OH}$ which, reacting with excess sebacic acid, would produce a polymer $[\text{CO}_2(\text{CH}_2)_8\text{NHCO}(\text{CH}_2)_2\text{CONH}(\text{CH}_2)_2\text{OCO}(\text{CH}_2)_8]_n$ of a different identity period. The general distribution of the reflections and intensities presents a similarity to paraf-

3

fin or polythene. From the $(hk0)$ reflections, the polymer has an orthorhombic lattice with $a = 7.84$, $b = 4.88$, and $c = 16.90 \text{ \AA}$. The sharpness of the lines of the unstretched polymer indicates a high degree of order. The rigid parts of the molcs., coinciding with the direction of the c axis of the ordered regions, are oriented very nearly perpendicular to the plane of the film; the total chain length being much greater than the thickness of the film, the chains must be folded. On stretching, a new orientation arises wherein the mol. chains tend to be oriented with the c axis parallel to the plane of the film. An intermediate orientation is produced by moderate (20-30%) stretching; in this case, if the film is rotated by a certain angle around the axis of stretching, one observes both a transition of rings to arcs along a line parallel to the axis of rotation, as in unstretched samples, and along a perpendicular equatorial line, as in fully stretched samples. It indicates both partial preservation of the original order characteristic of the unstretched state and appearance of new regions with a different orientation relative to the plane of the film. Of the 12 $(00l)$ reflections, the most intense, (007) and (0014) , corre-

spond to the identity periods 2.42 and 1.21 \AA . Further strong reflections are $l = 6, 8, 13$, and 15 . The flat chain molcs. are evidently disposed parallel to each other, the distances between neighboring chains being multiples of 1.23 \AA . The higher intensity of (007) and (008) may indicate that the cell is not exactly orthorhombic, but slightly monoclinic.

N. Thom

DISTLER, G. I.; KORSHAK, V. V. and CHELNOKOVA, G. N.

High Molecular Compounds. L. The Mechanism of Polycondensation of Monoethanol
Amine with Dicarboxylic Acids, page 1278, Sbornik Statay po obshchey khimii.
(Collection of Papers on General Chemistry), Vol II, Moscow-Leningrad, 1953,
pages 1680-1686.

USSR/ Physics - Light filters

Card 1/1 Pub. 124 - 14/32

Authors : Gil'varg, A. B., and Distler, G. I.

Title : At the Institute of Crystallography

Periodical : Vest. AN SSSR 25/6, 80-82, June 1955

Abstract : Announcement is made by the Institute of Crystallography on the development of a new interference-polarization light filter suitable for the study of the characteristics of the sun. The filter consists of 10 polarizers and 9 quartz plates of total thickness of 144 mm. Aperture diameter of the filter is 30 mm. Other features of the light-filter are listed.

Institution :

Submitted :

Distler, G. I.

USSR/Physics - Interference-polarization light filtration

Card 1/2

Pub. 22 -- 9/47

Authors : Gil'berg, A. B.; Distler, G. I.; and Makarova, M. A.

Title : Interference-polarization light filter for K-lines of ionized calcium

Periodical : Dok. AN SSSR, 100/6, 1067-1068, Feb 21, 1955

Abstract : Announcement is made about the design and construction of the MPSF-3934 interference-polarization light filter for astrophysic investigations of solar spectra. The filter consists of 9 quartz elements and 10 polarizers with a thickness of the last quartz plate of 52.6mm.

Institution : Academy of Sciences USSR, Institute of Crystallography

Presented by : Academician A. V. Shubnikov, November 11, 1954

Periodical : Dok. AN SSSR, 1067-1068, Feb 21, 1955

Card 2/2 Pub. 22 - 9/47

Abstract : Tests showed that this filter can also be effectively applied for the study of the chromosphere and prominences. The semi-width of the filter band pass is 0.9 Å. Prominence photos obtained by means of the IPSF-3934 filter are included. Four references: 3 USSR and 1 USA (1949-1953). Graphs; illustrations.

1. Институт Кристаллографии
Академии Наук СССР

DISSTER, G.I.

7797 DEVELOPMENT AND INVESTIGATION OF THERMALLY STABLE POLARIZATION FILTERS G.I. Disster and E.V. Paryova
Kristallografiya, Vol. 1, No. 2, 221-7 (1956) in Russian

3
4E23-1

I. INSTITUT KRISTALLOGRAFI
Akademii Nauk SSSR.

DISTLER, G. I.

120-6-28/36

AUTHORS: Distler, G.I., Bondarenko, K.P., and Dobrzhanskiy, G.F.

TITLE: A Polarizing Attachment to the MKC-11 Infra-red Spectrometer (Polarizatsionnoye prispobleniye k infrakrasnomu spektrometru IKS-11)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1957, No.6,
pp. 106 - 108 (USSR)

Polarizing Attachment to the UKC-11 Infra-red Spectrometer. 120-6-28/36

(Institut Kristallografii AN SSSR)

SUBMITTED: April 16, 1957.

AVAILABLE: Library of Congress.

Card 2/2

DISTLER, G.I.

51-4 -3-29/30

AUTHOR: Distler, G.I.

TITLE: New Polarization Light-Filters for Short-Wavelength Infrared Radiation. (Novyye polarizatsionnyye svetofil'try dlya korotkovolnovogo infrakrasnogo izlucheniya.)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol.IV, No.3, p.419 (USSR)

ABSTRACT: The usual polaroids prepared by iodination of polyvinyl alcohol absorb strongly in the ultraviolet, and in the infrared (beginning from 750 μ) they cease to polarize. The author reported in Ref.1 preparation of ultraviolet polaroids for 230-400 μ at the Institute of Crystallography of the Academy of Sciences of the USSR. The present brief note reports developments of infrared polaroids for short-wavelength radiation. These polaroids are films of orange colour 0.06-0.07 mm thick (the composition of these films is not given). In the crossed position the films exhibit dark red to black colours. Spectral characteristics of these infrared polaroids placed between glass plates were measured by means of an

Card 1/2

51-4-3-29/30
New Polarization Light-Filters for Short-Wavelength Infrared
Radiation.

SF-4 spectrophotometer with a special polarizing adjustment. These polaroids (called PPI) polarized almost completely radiation of 600-1100 mμ. In their transmission (see the figure on p.419) and polarization efficiency the infrared polaroids are not inferior to the usual ones employed in the visible region. The PPI absorb ultraviolet and blue light. They are stable on heating up to 160°C and can be obtained in large sizes. There is 1 figure and 1 Soviet reference.

ASSOCIATION: Institute of Crystallography, Academy of Sciences of the USSR. (Institut kristallografi AN SSSR.)

SUBMITTED: July 17, 1957.

1. Polyvinyl alcohol--Iodination
2. Polaroids---Development
3. Polaroids--absorption
4. Ultraviolet--Applications
5. Infrared--Applications

Card 2/2

AUTHOR: Distler, G.I.

SOV/51-5-2-24/26

TITLE: Infrared Polarization Filters (Infrakrasnyye polarizatsionnyye fil'try)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol 5, Nr 2, p 219 (USSR)

ABSTRACT: Complete translation. The PPI filters developed at the Institute of Crystallography of the Academy of Sciences of the U.S.S.R. (Ref 1) polarize short-wavelength infrared radiation up to 1.1-1.2 μ . It was decided to obtain polaroid samples which would be effective at longer wavelengths. These new infrared polaroids, developed at the Institute, polarize light at from 0.5 to $\sim 3 \mu$. Polaroids of several types may be prepared, differing in transparency and the degree of polarization in the wavelength region just given. The first type of polaroids produced is suitable for radiation in the region 0.75-2.0 μ (Fig 1); the second type is useful for polarization of radiation up to $\sim 2.4 \mu$ (Fig 2); the third type is intended for polarization of radiation up to $\sim 3 \mu$ (Fig 3). This third type

Card 1/2

Infrared Polarization Filters

SOV/51-5-2-24/26

polarizes radiation in the whole region from 0.75 to $\sim 3\mu$, but the first two types are more transparent in the short-wavelength portion of the spectrum and produce a high degree of polarization. The new polaroids possess good optical properties and should find use in the infrared polarization spectroscopy and in optical instrument making. There are 3 figures and 1 reference (G.I. Distler, Optika i Spektroskopiya, Vol IV, p. 419, 1958).

ASSOCIATION: Institut kristallografi, AN SSSR (Institute of Crystallography, Academy of Sciences of the U.S.S.R.)

SUBMITTED: April 17, 1958

Card 2/2 1. Polarizing filters--Development 2. Polarizing filters--Effectiveness
3. Infrared filters--Applications

34731

S/070/62/007/001/011/022

E021/E435

26.2420

AUTHORS: Distler, G.I., Daryusina, S.A.

TITLE: Electron-microscopic study of the formation of lead sulphide films

PERIODICAL: Kristallografiya, v.7, no.1, 1962, 107-113 + 2 plates

TEXT: An electron-micrographic study of lead sulphide formed on a crystalline substrate-mica and on an amorphous substrate-glass has been carried out. Lead sulphide was produced in the following way: one part of a 4% solution of lead acetate was mixed with three parts of 2% thiourea solution. After mixing, three parts of a 2% sodium hydroxide solution was added. At the same time 40 to 50 plates of mica or glass were immersed in a vertical position. The plates had been preliminarily carefully cleaned. Precipitation was carried out in a thermostat at 3 and 23°C. The electron-microscopic investigations were carried out by the replica method using a magnification of 12000 to 15000. Precipitation on a glass was carried out at 23°C for 1 sec to 6 min. At the beginning, fairly coarse flat particles of 0.8 to 1.2 μ precipitated, after about 1 sec the precipitation consisted of small isometric Card (1/3)

Electron-microscopic study ...

S/070/62/007/001/011/022
E021/E435

particles with mean dimensions 200 to 300 Å. These formed preferentially on the parts of the glass where there are no large flat particles. With increasing time, the particles gradually cover the whole surface. After about 5 min the surface of the glass is covered with a compact layer, consisting of crystals of lead sulphide of an octahedral form. Precipitation on mica was carried out for 1 sec to 2 hours at 3°C and 1 sec to 5 min at 23°C. In the first stages, very thin flat particles of 500 to 1500 Å are formed. The particles have no real geometric shape and form preferentially on smooth parts of the surface. After a time, isometric particles are formed, at first on free parts of the surface and then on the earlier-formed flat particles, preferentially at the edges. The isometric crystals then grow and form octahedral crystals. Thus, nuclei form directly on the substrate and not in the solution. There is epitaxial growth of lead sulphide crystals on mica without any kind of orientation according to morphology. The results indicate that during chemical precipitation of lead sulphide, migration of molecules plays an important role in the

Card 2/3

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Electron-microscopic study ...

S/070/62/007/001/011/022
E021/E435

formation of nuclei and the growth of crystals.
There are 4 figures.

ASSOCIATION: Institut kristallografii AN SSSR
(Institute of Crystallography AS USSR)

SUBMITTED: January 18, 1961

X

Card 3/3

L 00939-66 EWT(1)/T/EEG(b)-2/EWA(h) IJP(c) GG/AT

ACCESSION NR: AR5004726

S/0275/64/000/010/B009B010
621.315.592:548.552.543.47

SOURCE: Ref. zh. Elektronika i yeye primeneniye. Svodnyy tom, Abs. 10B64

AUTHOR: Grechushnikov, B. N.; Distler, G. I.; Chudakov, V. S.

TITLE: Photoelectric method for investigating stresses and inhomogeneities in semiconductor crystals

CITED SOURCE: Sb. Metod fotoelektr. infrakrasn. polyariskopii i defektoskopii poluprovodnik. materialov. M., 1962, 6-15

TOPIC TAGS: semiconductor crystal, structural defect, crystal defect

TRANSLATION: A method was developed of photoelectric IR-polariscopy and flaw detection which involves successive measurement of transmission and birefringence at separate points of a semiconductor crystal; this characterizes the structural defects of the crystal. The method also permits visual observation of the pattern of distribution and birefringence in the IR spectral region. The equipment involved operates on the principle of scanning a beam and uses high-sensitivity IR receivers. In order to obtain quantitative data, the electric signal of the IR

Card/2

L 00939-56

ACCESSION NR: AR5004726

receiver is amplified and recorded by an instrument. This electric signal can also be converted into visible light. In conjunction with a microscope, the method permits studying structural defects. These instruments operating according to the above method have been designed and built: IR-polariscope PIK-1 and IR-polarization microscope with a scanning device intended for studying structural defects in Si and Ge crystals. 0

SUB CODE: SS

ENCL: 00

Card 2/2 *SP*

L 0094j-56 EWT(1)/EWT(m)/T/EWP(t)/EEG(b)-2/EWP(k)/EWP(b) IJP(c) JD/GG

ACCESSION NR: AR5004725

S/0275/64/000/010/B009/B009
621.315.592:548.552:546.28

SOURCE: Ref. zh. Elektronika i yeye primeneniye. Svodnyy tom, Abs. 10B63 37
B

AUTHOR: Distler, G. I.; Rychkova, S. V.; Chernyak, T. Ye.; Chudakov, V. S.

TITLE: Using the method of infrared polariscopy for investigation of alloy-junction simulators, and the effect of machining on the birefringence of silicon crystals 21

CITED SOURCE: Sb. Metod fotoelektr. infrakrasn. polyariskopii i defekroskopii poluprovodnik. materialov. M., 1962, 16-21

TOPIC TAGS: pn junction, silicon crystal birefringence 27

TRANSLATION: Single n-Si crystals grown in vacuum and in He by the Chokhral'skiy method with a resistivity of 20--100 ohms-cm were studied. Simulators of p-n junctions were prepared by alloying Al-foil at 600C. The crystal birefringence was studied by the method of photoelectric IR-polariscopy. It was found that, during the crystal growing, stressed regions near the side surface arise, the stresses reaching 63 kg/cm². In the plates cut along (111), i. e., at right angles to the growth axis, the stresses along the ingot axis are distributed irregularly; the highest birefringence occurs at the ingot ends. Also plates cut along the (100) plane, Card 1/2

L 00943-56

ACCESSION NR: AR5004725

i. e., at an angle to the growth axis were investigated. In this case, the stresses in the maximum-birefringence regions were much lower and distributed more uniformly than in the plates cut along (111). In the plates intended for devices the stresses were relieved in the process of cutting. In preparation of a p-n junction by the alloy method, a birefringence arises which corresponds to tangential stresses up to 70 kg/cm². Bibliography: 4 titles.

SUB CODE: SS

ENCL: 00

Card

2/2 DP

DISTLER, G.I.; DARYUSINA, S.A.

New crystal surface decorating technique. Kristallografiia 7
no.2:266-270 Mr-Ap '62. (MIRA 15:4)

1. Institut kristallografii AN SSSR.
(Crystal lattices) (Electron microscopy)

ACCESSION NR: AR4044002

S/0058/64/000/006/E048/E049

SOURCE: Ref. zh. Fizika, Abs. 6E365

AUTHOR: Grechushnikov, B. N.; Distler, G. I.; Chudakov, V. S.

TITLE: The photoelectric method of investigating stresses and heterogeneities in semiconductor crystals

CITED SOURCE: Sb. Metod fotoelektr. infrakrasn. polariskopii i defektoskopii poluprovodnik. materialov. M., 1962, 6-15

TOPIC TAGS: photoelectric method, stress, heterogeneity, semiconductor crystal, IR polariscopy, flaw detection

TRANSLATION: There is developed a method of photoelectric infrared polariscopy and flaw detection, consisting in consecutive measurement, at individual points of semiconductor crystals, of values of transmission and birefringence that characterize their structural imperfections. The method also makes it possible to visually observe the pictures of transmission and birefringence distribution obtained in the infrared region of the spectrum. The apparatus used in this method

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operates on the principle of scanning using high-sensitivity infrared-radiation receivers. To obtain quantitative data, the electrical signal generated in the infrared receiver is amplified and recorded by a measuring device. The electrical signal can also be converted into visible light. When using a microscope with this method it is possible to study various structural flaws. There have been designed and built instruments that operate using this method: the infrared polariscope PIK-1 and infrared polarization scanning microscope to investigate structural flaws in silicon and germanium crystals.

SUB CODE: SS, OP

ENCL: 00

Card 2/2

ACCESSION NR: AR4044004

S/0058/64/000/006/EO49/EO49

SOURCE: Ref. zh. Fizika, Abs. 6E368

AUTHOR: Distler, G. I.; Ry*chkova, S. V.; Chernyak, T. Ye.; Chudakov, V. S.

TITLE: Use of the method of infrared polariscopy to study models of alloy junctions and the influence of mechanical processing on birefringence in Si crystals

CITED SOURCE: Sb. Metod fotoelektr. infrakrasn. polyariskopii i defektoskopii poluprovodnik. materialov. M., 1962, 16-21

TOPIC TAGS: IR polariscopy, alloy junction, silicon crystal, crystal, birefringence

TRANSLATION: Studies high-resistance n-type silicon single crystals grown by the Czochralski method in a vacuum, and He with resistivity of 20-100 ohm-cm. Birefringence in crystals is studied by the method of photoelectric infrared polariscopy. It is found that during crystal growth there arise stressed regions near the lateral face; the stresses reach up to 63 kg/cm². For plates cut perpendicular to the axis of growth it is shown that stresses along the axis of the bar spread non-uniformly; maximum birefringence occurs at the ends of the bar. There were in-

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ACCESSION NR: AR4044004

vestigated plates cut at an angle to the growth axis. In this case, stresses in regions with maximum birefringence in these plates are considerably smaller in value and spread more uniformly.

SUB CODE: SS, OP

ENCL: 00

Card 2/2

ACCESSION NR: AR4046004

S/0058/64/000/007/D058/D058

SOURCE: Ref. zh. Fizika, Abs. 7D457

AUTHORS: Distler, G. I.; Korchazhkina, R. L./ Chudakov, V. S.

TITLE: Investigation of the dependence of birefringence in germanium single crystals on the growth conditions

CITED SOURCE: Sb. Metod fotoelektr. infrakrasn. polyariskopii i defektoskopii poluprovodnik. materialov. M., 1962, 28-35

TOPIC TAGS: crystal growth, germanium, single crystal, double refraction, dislocation study

TRANSLATION: A photoelectric scanning polariscope PIK-1 (wavelength 2.25μ) was used to study the dependence of birefringence patterns due to mechanical stresses on the thermal regimes of germanium crystal growth. The samples were cut perpendicular to the growth axis from crystals obtained by the Czochralski method, by zone melting, and by the tablet method. The obtained birefringence distributions

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ACCESSION NR: AR4046004

agree with the distributions in the dislocation density, determined from the etch figures. It is indicated that in technological investigations the method of birefringence study is less laborious than the method of dislocation study. V. Sintsov.

SUB CODE: SS, OP

ENCL: 00

Card 2/2

13003-65 ENT(m)/EMP(t)/EIP(b) JJP(c) JD

ACCESSION NR: AR4046005

S/0058/64/000/007/DO:8/DO58

SOURCE: Ref. zh. Fizika, Abs. D458

AUTHORS: Voronov, I. N.; Distler, G. I.; Chertkov, M. P.;
Chudakov, V. M. BTITLE: Investigation of birefringence in silicon crystals by the
method of infrared polariscopy 27CITED SOURCE: Sb. Metod fotoelektr. infrakrasn. polariskopii i
defektoskopii poluprovodnik. materialov. M., 1962, 22-27TOPIC TAGS: silicon, single crystal, double refraction, polariscope,
dislocation study, ir measurement 18TRANSLATION: Birefringence patterns were investigated of single
crystals of n-type silicon grown by the Czochralski method in vacuum
and in an argon or helium atmosphere. Plates cut perpendicular and
parallel to the crystal growth axis were investigated. The bire-
fringence patterns were obtained with the aid of a PIK-1 scanning
polariscope. The homogeneity of transmission of infrared radiation

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ACCESSION NR: AR4046005

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in the crystal plane, the dislocation density, and the minority carrier lifetime were also investigated. The values of the principal tangential stresses in the single crystal were investigated. A correlation is established between the values of the principal stresses in the crystal and the dislocation density or the minority carrier lifetime. The possibility of observing birefringence regions corresponding to screw-type impurity macro-inhomogeneity is demonstrated.

SUB CODE: SB, OP

ENCL: 00

Card 2/2

L 1392-63

EFT(1)/EWP(G)/EWT(X)/RDS AFFI(U)/ABD/APGC/SSD WH

ACCESSION NR: AP3000736

S/0070/63/008/003/0161/0168

AUTHOR: Grebushnikov, B. N.; Distler, G. I.; Petrov, I. P.TITLE: A Fourier spectrometer with filtersSOURCE: Kristallografiya, v. 8, no. 3, 1963, 465-468TOPIC TAGS: quartz, spectral transmission, Fourier series, low-intensity radiation, interference-polarisation filter

ABSTRACT: The authors reduce the task of determining spectral composition of low-intensity radiation to computation of Fourier coefficients by solving a system of algebraic equations, shown in Formula (1). The right side of these equations may be determined by measurement, to be made on an instrument constructed at the Institute of Crystallography AN SSSR. This instrument consists of a mirror optical system, Fourier filters, and a receiver-amplifier current with automatic recorder. The optical system has two mirrors and objectives of fluorite, producing a beam of light with a half angle of resolution of 4 degrees. A shutter with seven Fourier filters is placed in this beam, and the light is directed to the intake of the receiver-amplifier circuit (the panel from an IKS-12 spectrometer or a standard 28IN amplifier). The amplified signal is then introduced to the intake of an

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ACCESSION NR: AP3000786

EFP-09¹ electronic potentiometer. The filters are made of quartz of various computed thicknesses to give the proper effect. The authors expect this device to solve a number of various kinds of spectral problems, such as determination of spectral sensitivity of photoelectric cells. Orig. art. has: 5 figures and 7 formulas. 5 4

ASSOCIATION: Institut kristallografi AN SSSR (Institute of Crystallography, Academy of Sciences SSSR)

SUBMITTED: 13Aug62

DATE ACQ: 21Jun63

ENCL: 01

SUB CODE: 00

NO REF SOV: 003

OTHER: 000

Card 2/32

L 13393-63

HDS

ACCESSION NR: AP3000787

9/0070/13/1008/003/0168/0171

AUTHOR: Grechushnikov, B. N.; Distler, G. I.; Petrov, I. P.

50
49

TITLE: A Fourier spectrometer for work in the near-infrared region of the spectrum
/Results were presented at the All-Union Conference of Spectroscopy, 1959/

SOURCE: Kristallografiya, v. 8, no. 3, 1963, 468-471.

TOPIC TAGS: Fourier transformation, infrared spectrum, quartz wedge, spectrometer, luminescence

ABSTRACT: This is an expansion of the device and application discussed in a previous article by the same authors (Kristallografiya, 8, 3, 1963). The expansions include substitution of a quartz wedge in the optical system in order to make use of the Fourier transformation and the addition of extra circuits and instruments to permit the desired measurements of near-infrared radiation. The optical arrangement and construction of the quartz wedge are shown in Figs. 1 and 2. The schematic arrangements of circuits in the setup are shown in Figs. 3 and 4. The authors used the apparatus to study luminescence spectra of several crystals in the visible and near-infrared regions of the spectrum. The results were not reported in this article but were reported previously in a short presentation at the All-Union Conference on Spectroscopy in 1959.

Card 1/6/

ASSN: Inst. of Crystallography, Academy of Sciences-SSSR

DISTLER, G.I.; DARYUSINA, S.A.

Mechanism underlying secondary decorating of crystal surfaces.
Kristallografiia 9 no.1:119-121 Ja-F '64. (MIRA 17:3)

1. Institut kristallografii AN SSSR.

DISTLER, G. I.; DARYUSINA, S. A.; GERASIMOV, Yu. M.

"A new method of decorating the active sites of crystal surfaces."

report submitted to 3rd European Regional Conf, Electron Microscopy,
Prague, 26 Aug-3 Sep 64.

DISTLER, G.I.; YAMPOL'SKAYA, G.P.

Test object for calibrating the magnifications of electron
microscopes. Zav. lab. 30 no.1:69-71 '64. (MIRA 17:9)

1. Institut kristallografi AN SSSR.

DISTLER, G.I.; DARYUSINA, S.A.; GERASIMOV, Yu.M.

Method for determining inhomogeneities of crystal surfaces based on
early crystallization stages. Dokl. AN SSSR 154 no.6:1328-1330 F
'64. (MIRA 17:2)

1. Institut kristallografii AN SSSR. Predstavleno akademikom N.V.Belovym.

DISTLER, G.I.; SOTNIKOV, P.S.; KORTUKOVA, Ye. I.

Effect of the structure of polyvinyl alcohol films on the mechanism
of their pyrolysis. Dokl. AN SSSR 156 no. 3:652-653 '64.
(MIRA 17:5)

1. Institut kristallografii AN SSSR. Predstavleno akademikom
V.A.Karginym.